

IN THE CLAIMS

Please cancel claims 2, 16 and 22 without prejudice, and amend claims 1, 3-5, 10-11, 14-15, 21 and 23-26 as follows:

1        1. (Currently Amended) A communications system comprising  
2        first and second beacon devices and at least one portable device  
3        each capable of wireless message transmission and reception,  
4        wherein said at least one portable device is arranged to broadcast  
5        an inquiry message according to a first communications protocol,  
6        wherein said first beacon device is arranged to detect such an  
7        inquiry message and transmit a reply making available to one of  
8        said second beacon and said portable device an address or  
9        identifier for the other, and wherein said second beacon and  
10       portable device are configured to perform a service interaction  
11       when triggered by the making available of said address or  
12       identifier, said reply comprising an inquiry response message,  
13       including said address for said second beacon, sent from said first  
14       beacon to said portable device.

Claim 2 (Canceled)

1           3. (Currently Amended) A communication system as claimed in  
2 Claim 1 comprising first and second beacon devices and at least one  
3 portable device each capable of wireless message transmission and  
4 reception, wherein said at least one portable device is arranged to  
5 broadcast an inquiry message according to a first communications  
6 protocol, wherein said first beacon device is arranged to detect  
7 such an inquiry message and transmit a reply making available to  
8 one of said second beacon and said portable device an address or  
9 identifier for the other, and wherein said second beacon and  
10 portable device are configured to perform a service interaction  
11 when triggered by the making available of said address or  
12 identifier, wherein said reply comprises firstly a notification  
13 message, including an identifier for said portable device, sent  
14 from said first beacon to said second beacon and, secondly, an  
15 inquiry response message, including said address for said second  
16 beacon, sent from said second beacon to said portable device.

1           4. (Currently Amended) A communication system as claimed in  
2 Claim 1 comprising first and second beacon devices and at least one  
3 portable device each capable of wireless message transmission and

4 reception, wherein said at least one portable device is arranged to  
5 broadcast an inquiry message according to a first communications  
6 protocol, wherein said first beacon device is arranged to detect  
7 such an inquiry message and transmit a reply making available to  
8 one of said second beacon and said portable device an address or  
9 identifier for the other, and wherein said second beacon and  
10 portable device are configured to perform a service interaction  
11 when triggered by the making available of said address or  
12 identifier, wherein said reply comprises firstly a further inquiry  
13 message of the first beacon to the portable device, secondly an  
14 inquiry response message including an identifier for the portable  
15 device and sent from the portable device to the first beacon, and  
16 thirdly a notification message, including said identifier for said  
17 portable device sent from said first beacon to said second beacon.

1       5. (Currently Amended) A communication system as claimed in  
2 Claim 1 comprising first and second beacon devices and at least one  
3 portable device each capable of wireless message transmission and  
4 reception, wherein said at least one portable device is arranged to  
5 broadcast an inquiry message according to a first communications  
6 protocol, wherein said first beacon device is arranged to detect

7 such an inquiry message and transmit a reply making available to  
8 one of said second beacon and said portable device an address or  
9 identifier for the other, and wherein said second beacon and  
10 portable device are configured to perform a service interaction  
11 when triggered by the making available of said address or  
12 identifier, comprising a plurality of second beacon devices,  
13 wherein the first beacon is arranged to select one of said second  
14 beacons whose address is to be made available to the portable  
15 device.

1 6.(Original) A system as claimed in Claim 5, wherein at least  
2 one of said plurality of second beacon devices is operable to  
3 transfer an ongoing service interaction with said portable device  
4 to a further second beacon device.

1 7.(Original) A system as claimed in Claim 6, wherein the  
2 selection of said further second beacon device is made by said  
3 first beacon device.

1        8.(Original) A system as claimed in Claim 6, wherein the  
2        selection of said further second beacon device is made by the  
3        second beacon device performing the ongoing service interaction.

1        9.(Original) A system as claimed in Claim 3, further  
2        comprising a secure data channel linking said first and second  
3        beacon devices and for the transmission of said notification  
4        messages.

1        10.(Currently Amended) A communication system as claimed in  
2        Claim 1 comprising first and second beacon devices and at least one  
3        portable device each capable of wireless message transmission and  
4        reception, wherein said at least one portable device is arranged to  
5        broadcast an inquiry message according to a first communications  
6        protocol, wherein said first beacon device is arranged to detect  
7        such an inquiry message and transmit a reply making available to  
8        one of said second beacon and said portable device an address or  
9        identifier for the other, and wherein said second beacon and  
10       portable device are configured to perform a service interaction  
11       when triggered by the making available of said address or  
12       identifier, wherein the second beacon device maintains and

13   periodically updates a list of identifiers for portable devices  
14   with which a service interaction is being performed.

1       11. (Currently Amended)   A communication system as claimed in  
2   Claim 1 comprising first and second beacon devices and at least one  
3   portable device each capable of wireless message transmission and  
4   reception, wherein said at least one portable device is arranged to  
5   broadcast an inquiry message according to a first communications  
6   protocol, wherein said first beacon device is arranged to detect  
7   such an inquiry message and transmit a reply making available to  
8   one of said second beacon and said portable device an address or  
9   identifier for the other, and wherein said second beacon and  
10   portable device are configured to perform a service interaction  
11   when triggered by the making available of said address or  
12   identifier, wherein the or each inquiry message is in the form of a  
13   plurality of data fields arranged according to said first  
14   communications protocol, wherein the portable device is further  
15   arranged to add to each inquiry message prior to transmission an  
16   additional data field, and wherein the first beacon device is  
17   arranged to receive the transmitted inquiry messages and read data  
18   from said additional data field.

1        12.(Original) A system as claimed in Claim 1, wherein said  
2 first communications protocol comprises Bluetooth messaging.

1        13.(Original) A mobile communications device for use in the  
2 system of Claim 1, comprising a transmitter operable to broadcast  
3 said inquiry message, data processing means controlling operation  
4 of the same, and a receiver capable of receiving at least a part of  
5 said reply, said data processing means supporting said service  
6 interaction via said transmitter and receiver.

1        14.(Currently Amended) A mobile communication device—as  
2 ~~elaimed in Claim 13,~~ for use in a communication system, said  
3 communication system comprising first and second beacon devices and  
4 at least one portable device each capable of wireless message  
5 transmission and reception, wherein said at least one portable  
6 device is arranged to broadcast an inquiry message according to a  
7 first communications protocol, wherein said first beacon device is  
8 arranged to detect such an inquiry message and transmit a reply  
9 making available to one of said second beacon and said portable  
10 device an address or identifier for the other, and wherein said

11 second beacon and portable device are configured to perform a  
12 service interaction when triggered by the making available of said  
13 address or identifier;

14 said mobile communication device comprising a transmitter  
15 operable to broadcast said inquiry message, data processing means  
16 controlling operation of the same, and a receiver capable of  
17 receiving at least a part of said reply, said data processing  
18 means supporting said service interaction via said transmitter and  
19 receiver, the device-receiver being capable of receiving a short-  
20 range wireless inquiry message, the data processing means being  
21 operable to process data contained within said message and compose  
22 a response message including an identifier for the device, and said  
23 transmitter being configured to wirelessly transmit said composed  
24 response message to the source of the inquiry message.

1 15. (Currently Amended) A communications infrastructure for  
2 use in the communications system ~~of Claim 1~~, said communication  
3 system comprising first and second beacon devices and at least one  
4 portable device each capable of wireless message transmission and  
5 reception, wherein said at least one portable device is arranged to  
6 broadcast an inquiry message according to a first communications



7 protocol, wherein said first beacon device is arranged to detect  
8 such an inquiry message and transmit a reply making available to  
9 one of said second beacon and said portable device an address or  
10 identifier for the other, and wherein said second beacon and  
11 portable device are configured to perform a service interaction  
12 when triggered by the making available of said address or  
13 identifier;

14       the infrastructure comprising first and second beacon devices,  
15 said beacon devices being capable of wireless message transmission  
16 to, and reception from, said at least one portable device, wherein  
17 said first beacon is arranged to listen for broadcast of an inquiry  
18 message according to a first communications protocol, on detection  
19 of such an inquiry message to transmit a reply making available to  
20 one of said beacon and said portable device an address or  
21 identifier for the other, and wherein said second beacon is  
22 configured to perform a service interaction with said portable  
23 device when triggered by the making available of said address or  
24 identifier, wherein said reply comprises an inquiry response  
25 message, including said address for said second beacon, sent from  
26 said first beacon to said portable device.

Claim 16 (Canceled)

1        17.(Original) A communications infrastructure as claimed in  
2 Claim 15, wherein said reply comprises firstly a notification  
3 message, including an identifier for said portable device, sent  
4 from said first beacon to said second beacon and, secondly, an  
5 inquiry response message, including said address for said second  
6 beacon, sent from said second beacon to said portable device.

1        18.(Original) A communications infrastructure as claimed in  
2 Claim 15, wherein said reply comprises firstly a further inquiry  
3 message of the first beacon to the portable device, secondly an  
4 inquiry response message including an identifier for the portable  
5 device and sent from the portable device to the first beacon, and  
6 thirdly a notification message, including said identifier for said  
7 portable device sent from said first beacon to said second beacon.

1        19.(Original) A communications infrastructure as claimed in  
2 Claim 15, further comprising a plurality of second beacons.

1        20.(Original) A communications infrastructure as claimed in  
2        Claim 19, further comprising message management means operable to  
3        initiate and effect handover of an ongoing message transmission  
4        session from one of said plurality of second beacons to another.

1        21.(Currently Amended) A method for enabling the user of a  
2        portable communications device to perform a service interaction  
3        with a beacon device in an environment containing at least first  
4        and second beacon devices capable of wireless message transmission  
5        and reception, wherein said portable communications device  
6        broadcasts an inquiry message according to a first communications  
7        protocol, the first beacon device detects such inquiry message and  
8        transmits a reply making available to one of the portable device  
9        and second beacon device an address or identifier for the other,  
10       and the second beacon and portable device perform said service  
11       interaction when triggered by the making available of said address  
12       or identifier, wherein said reply comprises an inquiry response  
13       message, including said address for said second beacon, sent from  
14       said first beacon to said portable device.

Claim 22 (Canceled)

1        23. (Currently Amended) A method ~~as claimed in Claim 21, for~~  
2        enabling the user of a portable communications device to perform a  
3        service interaction with a beacon device in an environment  
4        containing at least first and second beacon devices capable of  
5        wireless message transmission and reception, wherein said portable  
6        communications device broadcasts an inquiry message according to a  
7        first communications protocol, the first beacon device detects such  
8        inquiry message and transmits a reply making available to one of  
9        the portable device and second beacon device an address or  
10       identifier for the other, and the second beacon and portable device  
11       perform said service interaction when triggered by the making  
12       available of said address or identifier, wherein said reply  
13       comprises firstly a notification message, including an identifier  
14       for said portable device, sent from said first beacon to said  
15       second beacon and, secondly, an inquiry response message, including  
16       said address for said second beacon, sent from said second beacon  
17       to said portable device.

1       24. (Currently Amended) A method ~~as claimed in Claim 21, for~~  
2       enabling the user of a portable communications device to perform a

3 service interaction with a beacon device in an environment  
4 containing at least first and second beacon devices capable of  
5 wireless message transmission and reception, wherein said portable  
6 communications device broadcasts an inquiry message according to a  
7 first communications protocol, the first beacon device detects such  
8 inquiry message and transmits a reply making available to one of  
9 the portable device and second beacon device an address or  
10 identifier for the other, and the second beacon and portable device  
11 perform said service interaction when triggered by the making  
12 available of said address or identifier, wherein said reply  
13 comprises firstly a further inquiry message of the first beacon to  
14 the portable device, secondly an inquiry response message including  
15 an identifier for the portable device and sent from the portable  
16 device to the first beacon, and thirdly a notification message,  
17 including said identifier for said portable device sent from said  
18 first beacon to said second beacon.

1       25. (Currently Amended) A method for enabling the user of a  
2 portable communications device to perform a service interaction  
3 with a beacon device in an environment containing at least first  
4 and second beacon devices capable of wireless message transmission

5 and reception, wherein said portable communications device  
6 broadcasts an inquiry message according to a first communications  
7 protocol, the first beacon device detects such inquiry message and  
8 transmits a reply making available to one of the portable device  
9 and second beacon device an address or identifier for the other,  
10 and the second beacon and portable device perform said service  
11 interaction when triggered by the making available of said address  
12 or identifier, wherein the second beacon device maintains and  
13 periodically updates a list of identifiers for portable devices  
14 with which a service interaction is being performed.

1       26. (Currently Amended) ~~A method as claimed in Claim 21, for~~  
2 enabling the user of a portable communications device to perform a  
3 service interaction with a beacon device in an environment  
4 containing at least first and second beacon devices capable of  
5 wireless message transmission and reception, wherein said portable  
6 communications device broadcasts an inquiry message according to a  
7 first communications protocol, the first beacon device detects such  
8 inquiry message and transmits a reply making available to one of  
9 the portable device and second beacon device an address or  
10 identifier for the other, and the second beacon and portable device

11 perform said service interaction when triggered by the making  
12 available of said address or identifier, wherein said inquiry  
13 messages are each in the form of a plurality of predetermined data  
14 fields arranged according to said first communications protocol,  
15 wherein the portable communications device adds to each inquiry  
16 message prior to transmission an additional data field carrying  
17 broadcast message data, and wherein the first beacon device  
18 receives the transmitted inquiry messages and reads the broadcast  
19 data from said additional data field.

1       27.(Original) A method as claimed in Claim 26, wherein the  
2 portable communications device adds said additional data field at  
3 the end of a respective inquiry message.